FIG. 1

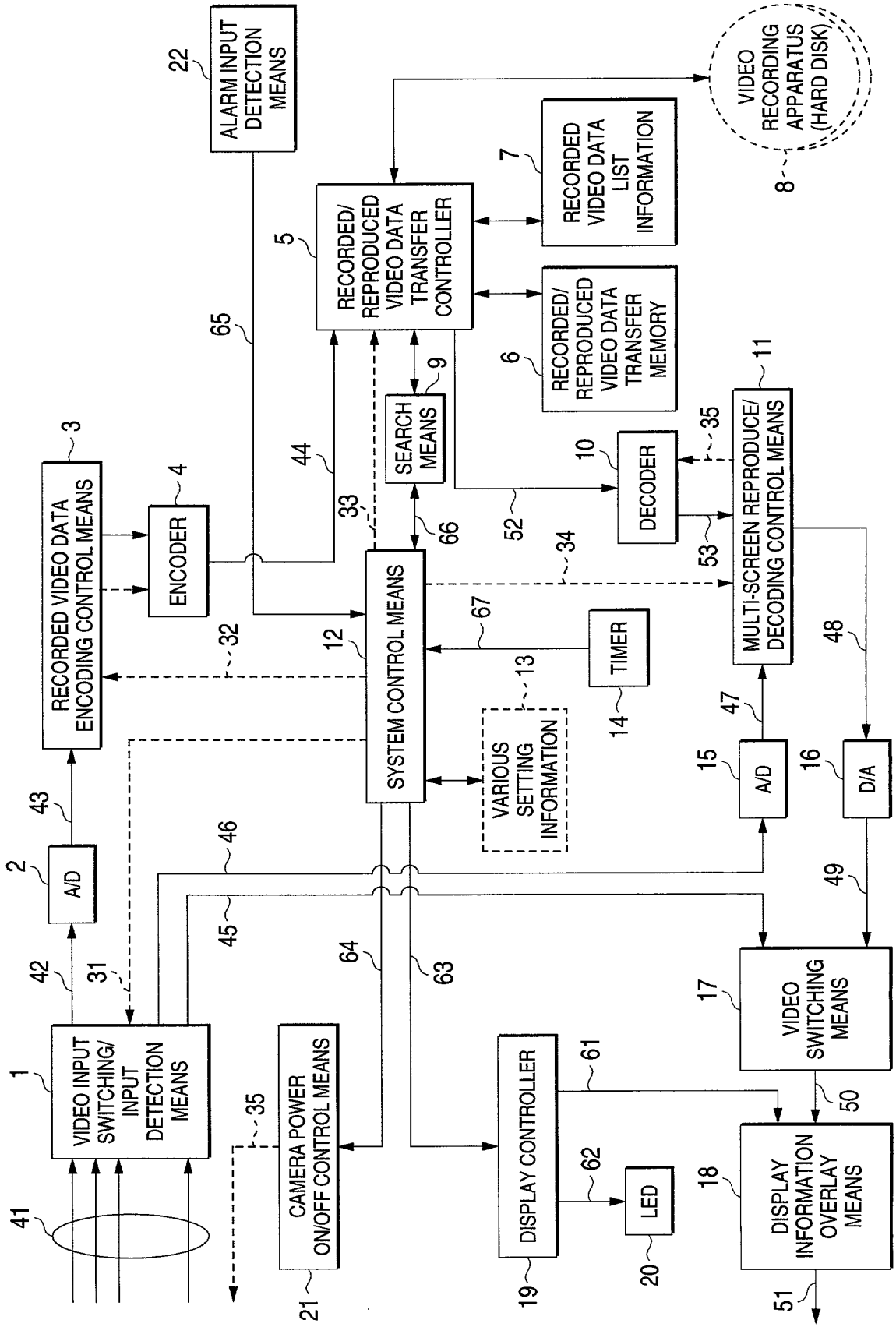

VIDEO INPUT SWITCHING/ INPUT DETECTION MEANS
A/D
RECORDED VIDEO DATA ENCODING CONTROL MEANS
ENCODER
ALARM INPUT DETECTION MEANS
RECORDED/ REPRODUCED VIDEO DATA TRANSFER CONTROLLER
RECORDED VIDEO DATA LIST INFORMATION
VIDEO RECORDING APPARATUS (HARD DISK)
RECORDED/ REPRODUCED VIDEO DATA TRANSFER MEMORY
SEARCH MEANS
DECODER
MULTI-SCREEN REPRODUCE/ DECODING CONTROL MEANS
SYSTEM CONTROL MEANS
TIMER
VARIOUS SETTING INFORMATION
A/D
D/A
CAMERA POWER ON/OFF CONTROL MEANS
DISPLAY CONTROLLER
LED
VIDEO SWITCHING MEANS
DISPLAY INFORMATION OVERLAY MEANS
41
42
31
43
2
46
45
64
63
1
35
21
19
20
61
62
17
50
18
51
49
48
47
15
16
12
13
14
67
32
44
33
66
65
52
53
34
9
10
11
6
7
5
22
3
4
8

FIG. 2

AREA IDENTIFIER	1, 2, · · · , M
RELEVANT CAMERA INFORMATION	NUMBER OF RELEVANT CAMERAS, CAMERA NO.
HIDDEN CAMERA INFORMATION	CAMERA NO.
VIDEO RECORDING STATE	HALT, TIMER VIDEO RECORDING (NORMAL), TIMER VIDEO RECORDING (ALARM)
VIDEO RECORDING DATA INFORMATION	VIDEO RECORDING DATA, DATA SERIAL NO., NUMBER OF RECORDED EXPOSURES, RECORDING RATE, PICTURE QUALITY, HIDDEN CAMERA INFORMATION
REPRODUCING OPERATION STATE	UNDER REPRODUCING/SUSPEND/REPRODUCING HALT (LIVE SCREEN DISPLAY)
REPRODUCED DATA INFORMATION	VIDEO RECORDING DATA, DATA SERIAL NO., TOTAL NUMBER OF RECORDED EXPOSURES, NUMBER OF REPRODUCED EXPOSURES/TIME, PRESENCE/ABSENCE OF ALARM, HIDDEN CAMERA REPRODUCE STATE
CUMULATIVE ALARM OPERATION INFORMATION	
SCREEN DISPLAY POSITION INFORMATION	

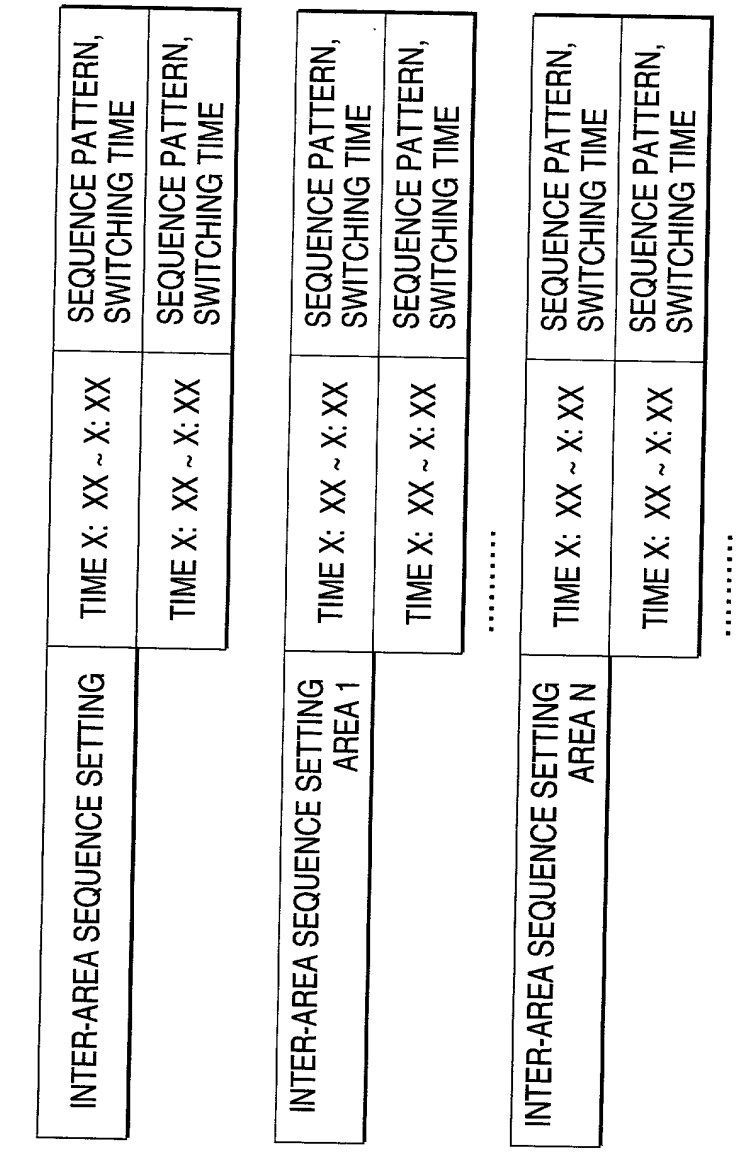

INTER-AREA SEQUENCE SETTING
TIME X: XX ~ X: XX
SEQUENCE PATTERN, SWITCHING TIME
TIME X: XX ~ X: XX
SEQUENCE PATTERN, SWITCHING TIME
INTER-AREA SEQUENCE SETTING AREA 1
TIME X: XX ~ X: XX
SEQUENCE PATTERN, SWITCHING TIME
TIME X: XX ~ X: XX
SEQUENCE PATTERN, SWITCHING TIME
.....
INTER-AREA SEQUENCE SETTING AREA N
TIME X: XX ~ X: XX
SEQUENCE PATTERN, SWITCHING TIME
TIME X: XX ~ X: XX
SEQUENCE PATTERN, SWITCHING TIME
.....

FIG. 3

FIG. 4

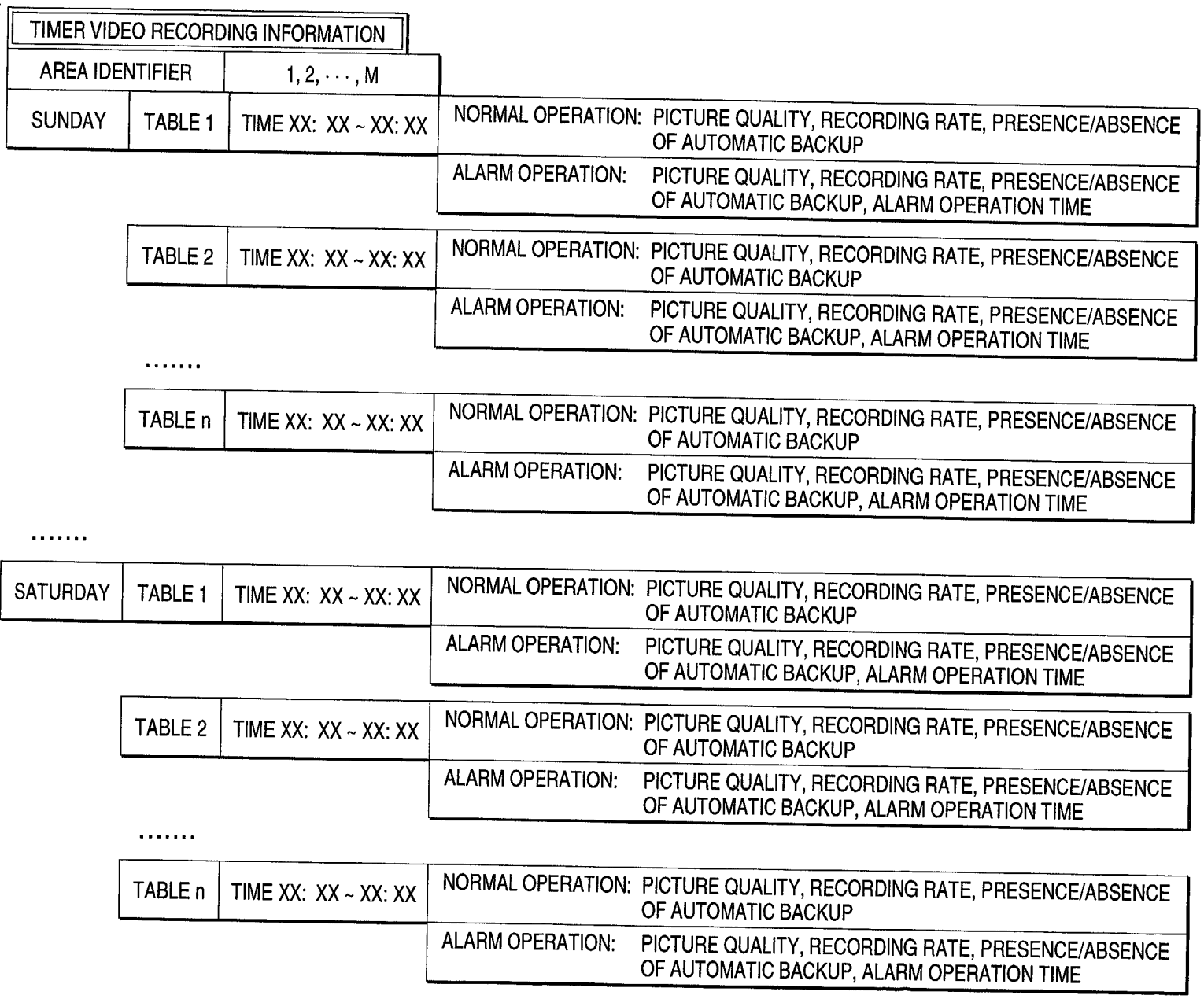

TIMER VIDEO RECORDING INFORMATION
AREA IDENTIFIER
1, 2, · · · , M
SUNDAY
TABLE 1
TIME XX: XX ~ XX: XX
NORMAL OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP
ALARM OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP, ALARM OPERATION TIME
TABLE 2
TIME XX: XX ~ XX: XX
NORMAL OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP
ALARM OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP, ALARM OPERATION TIME
.....
TABLE n
TIME XX: XX ~ XX: XX
NORMAL OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP
ALARM OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP, ALARM OPERATION TIME
.....
SATURDAY
TABLE 1
TIME XX: XX ~ XX: XX
NORMAL OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP
ALARM OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP, ALARM OPERATION TIME
TABLE 2
TIME XX: XX ~ XX: XX
NORMAL OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP
ALARM OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP, ALARM OPERATION TIME
.....
TABLE n
TIME XX: XX ~ XX: XX
NORMAL OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP
ALARM OPERATION: PICTURE QUALITY, RECORDING RATE, PRESENCE/ABSENCE OF AUTOMATIC BACKUP, ALARM OPERATION TIME

FIG. 5

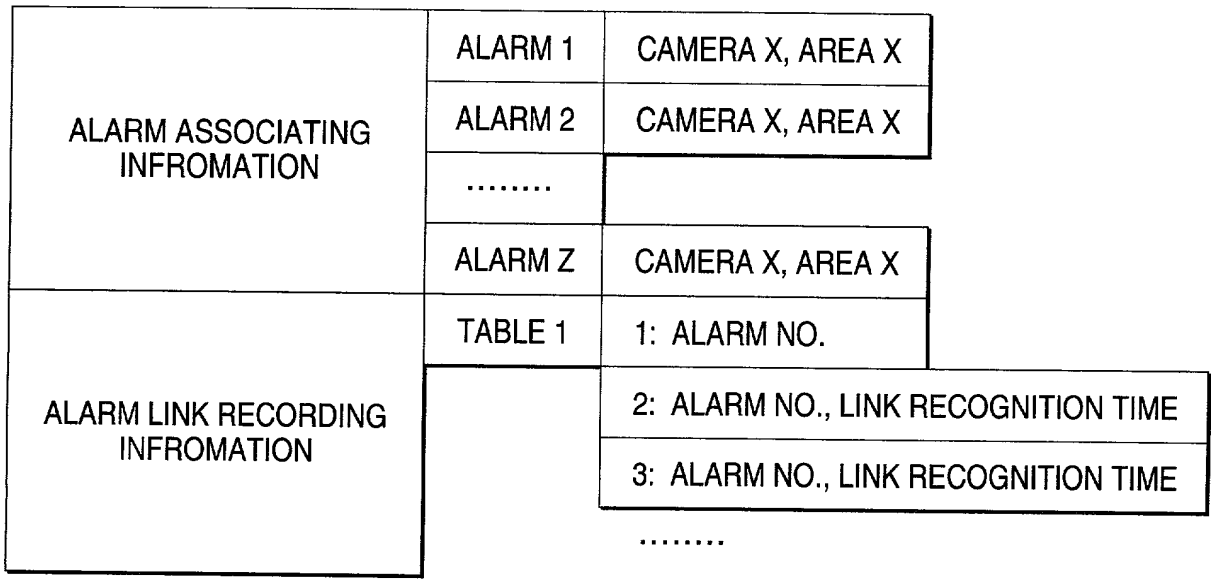


FIG. 6

AREA	INSTALLATION LOCATION	RELEVANT CAMERA
A	FIRST FLOOR (ENTRANCE)	CAMERAS 1, 2, 6, 9, 14, 15
B	FIRST FLOOR (COUNTER)	CAMERAS 3, 4, 5, 7, 16
C	SAFE	CAMERAS 10, 12
D	ATM CORNER	CAMERAS 8, 11, 13

FIG. 7

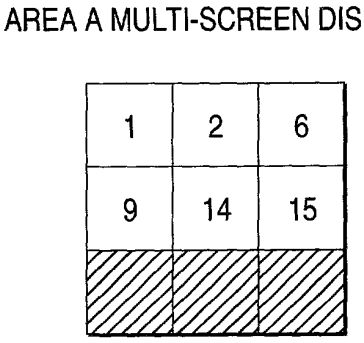

AREA A MULTI-SCREEN DISPLAY
1
2
6
9
14
15

FIG. 8

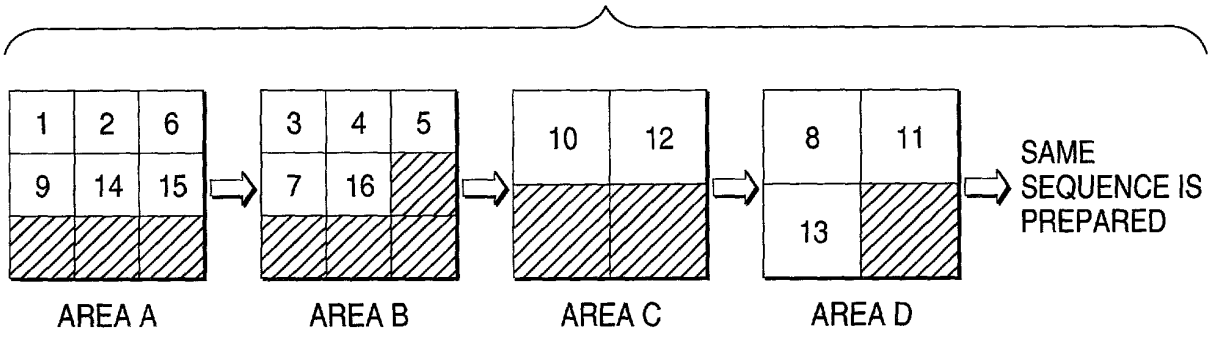

1
2
6
9
14
15
3
4
5
7
16
10
12
8
11
13
SAME SEQUENCE IS PREPARED
AREA A
AREA B
AREA C
AREA D

FIG. 9

AREA A RELEVANT CAMERA SEQUENCE

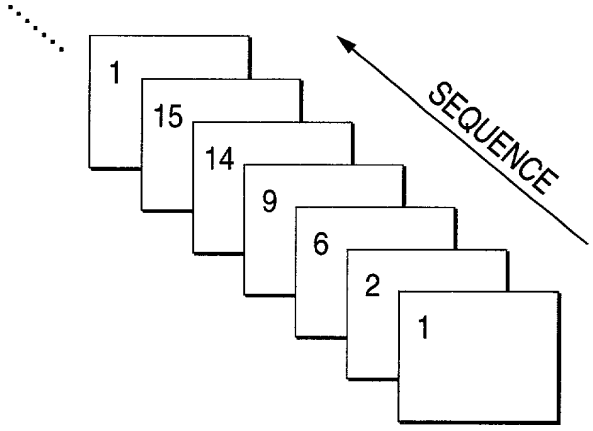


FIG. 10

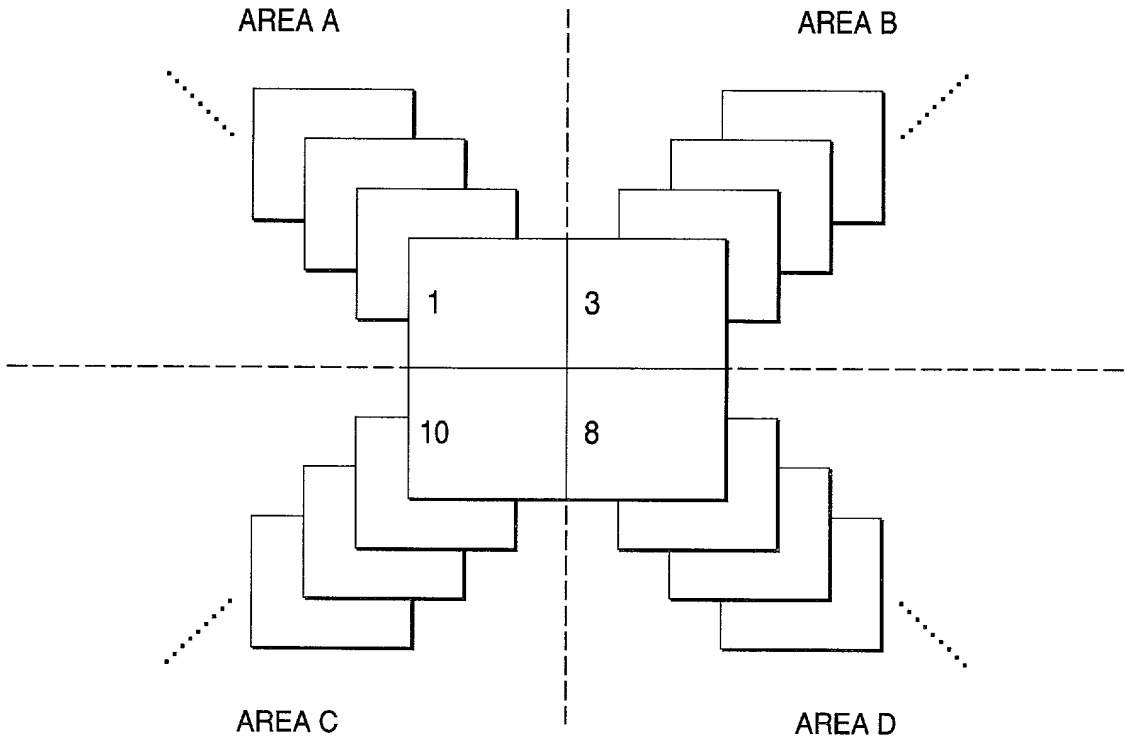


FIG. 11

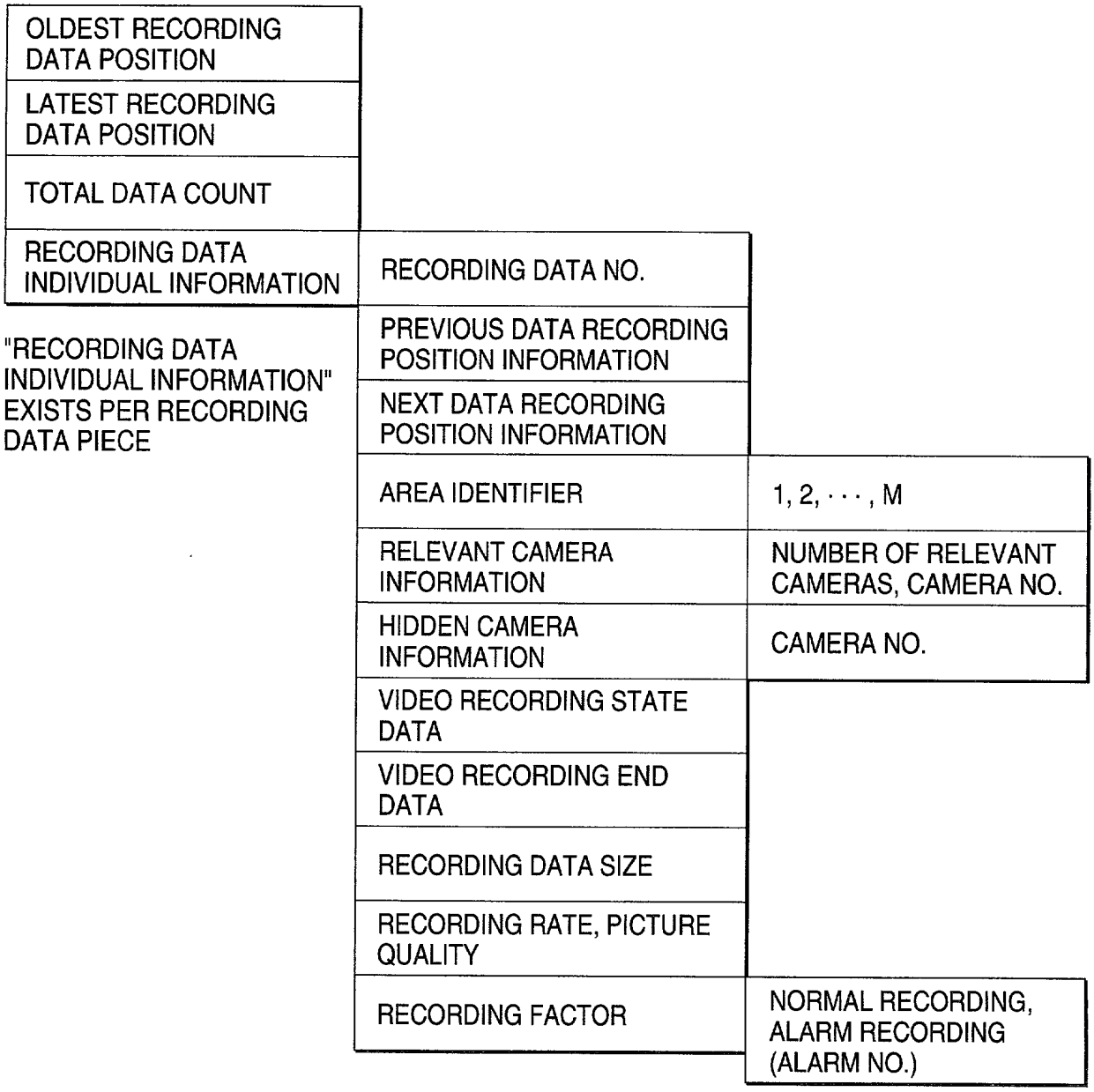

OLDEST RECORDING DATA POSITION
LATEST RECORDING DATA POSITION
TOTAL DATA COUNT
RECORDING DATA INDIVIDUAL INFORMATION
* "RECORDING DATA INDIVIDUAL INFORMATION" EXISTS PER RECORDING DATA PIECE
RECORDING DATA NO.
PREVIOUS DATA RECORDING POSITION INFORMATION
NEXT DATA RECORDING POSITION INFORMATION
AREA IDENTIFIER
1, 2, · · · , M
RELEVANT CAMERA INFORMATION
NUMBER OF RELEVANT CAMERAS, CAMERA NO.
HIDDEN CAMERA INFORMATION
CAMERA NO.
VIDEO RECORDING STATE DATA
VIDEO RECORDING END DATA
RECORDING DATA SIZE
RECORDING RATE, PICTURE QUALITY
RECORDING FACTOR
NORMAL RECORDING, ALARM RECORDING (ALARM NO.)

FIG. 12

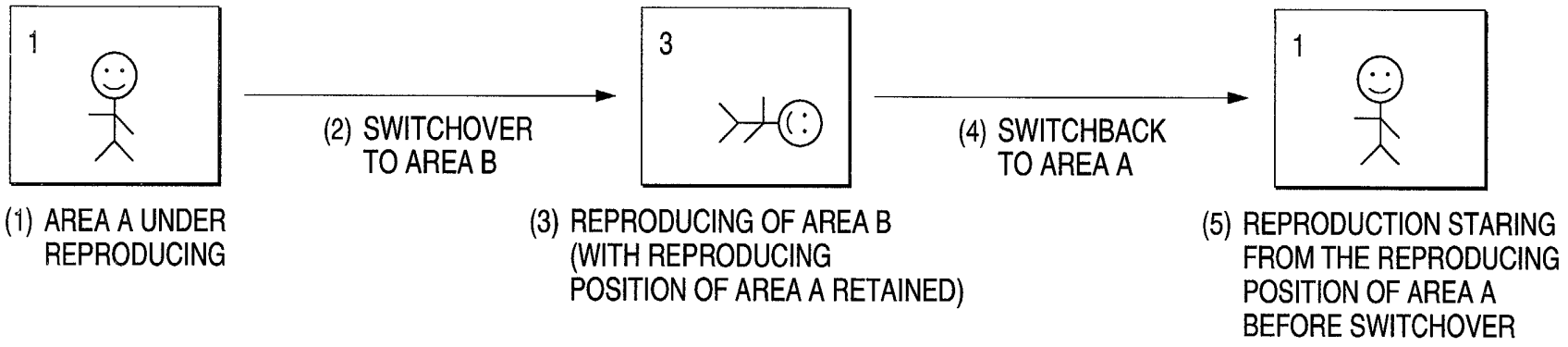

1
(1) AREA A UNDER REPRODUCING
(2) SWITCHOVER TO AREA B
3
(3) REPRODUCING OF AREA B (WITH REPRODUCING POSITION OF AREA A RETAINED)
(4) SWITCHBACK TO AREA A
1
(5) REPRODUCTION STARING FROM THE REPRODUCING POSITION OF AREA A BEFORE SWITCHOVER

FIG. 13A

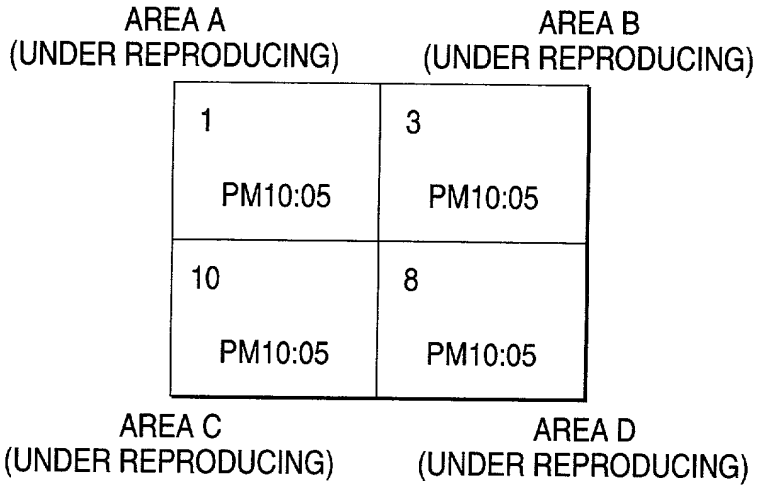


FIG. 13B

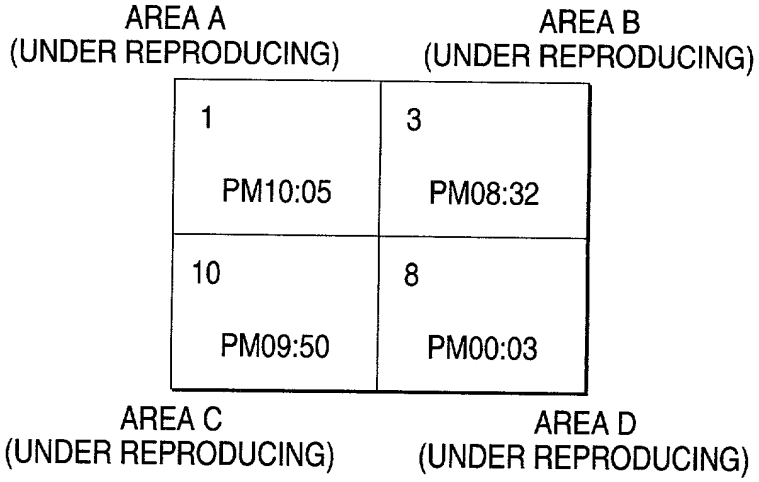


FIG. 13C

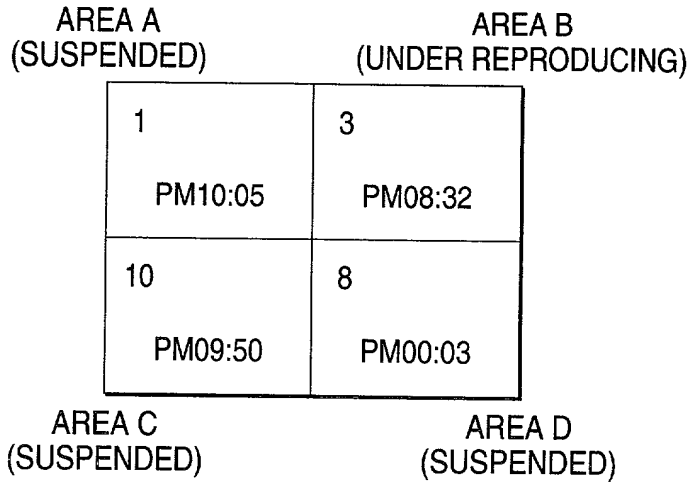


FIG. 14

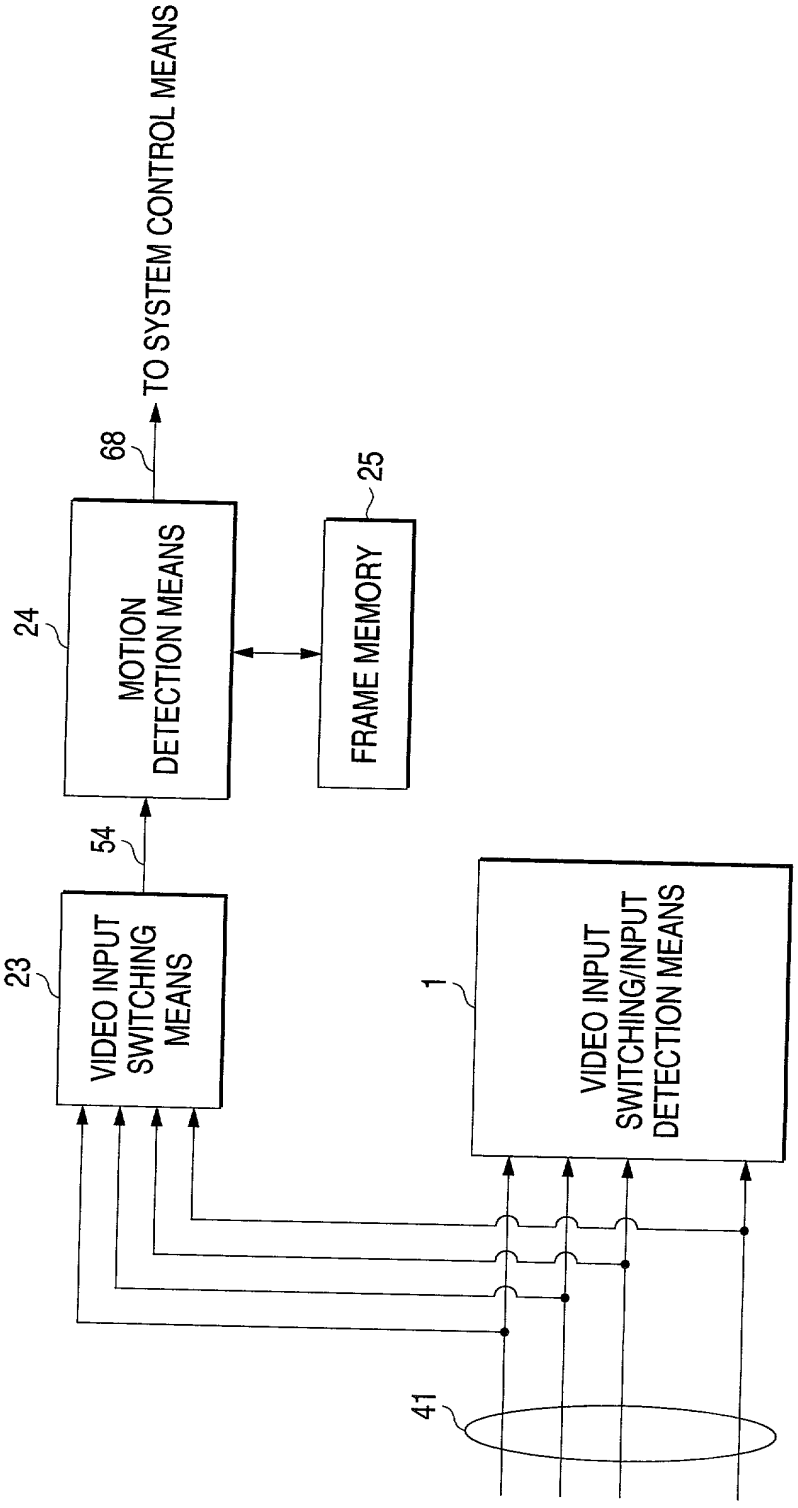

TO SYSTEM CONTROL MEANS
68
24
MOTION DETECTION MEANS
25
FRAME MEMORY
54
23
VIDEO INPUT SWITCHING MEANS
1
VIDEO INPUT SWITCHING/INPUT DETECTION MEANS
41

FIG. 15

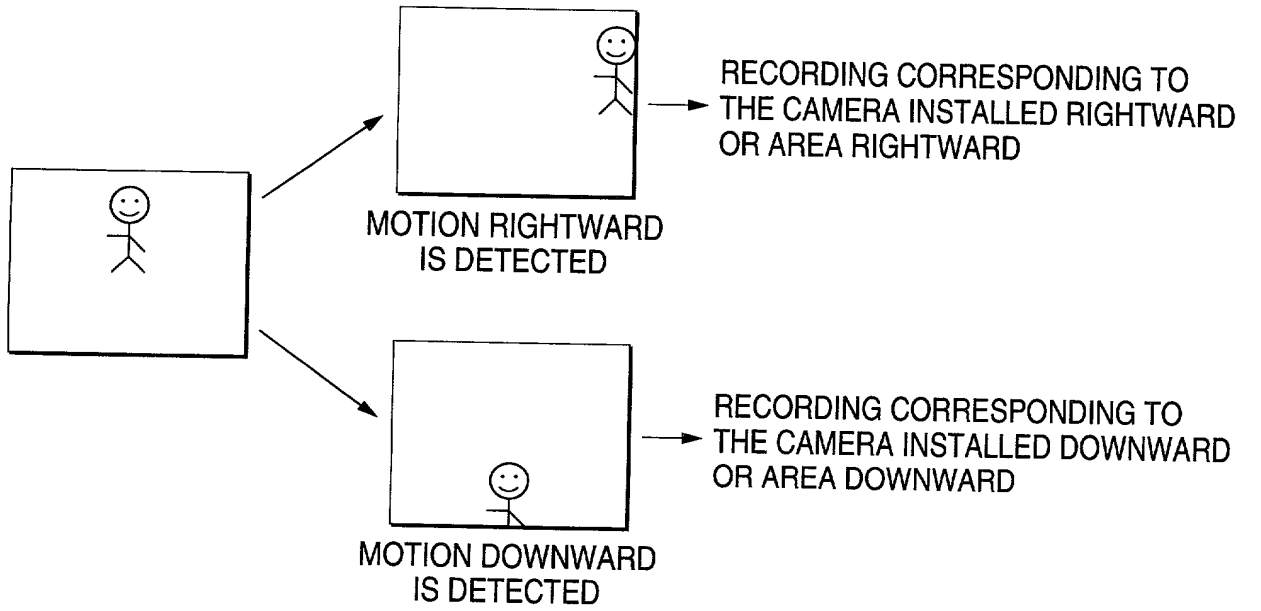

RECORDING CORRESPONDING TO THE CAMERA INSTALLED RIGHTWARD OR AREA RIGHTWARD
MOTION RIGHTWARD IS DETECTED
RECORDING CORRESPONDING TO THE CAMERA INSTALLED DOWNWARD OR AREA DOWNWARD
MOTION DOWNWARD IS DETECTED

FIG. 16

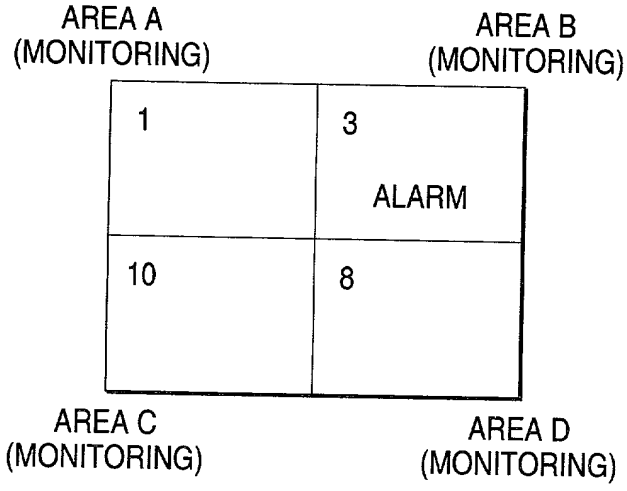
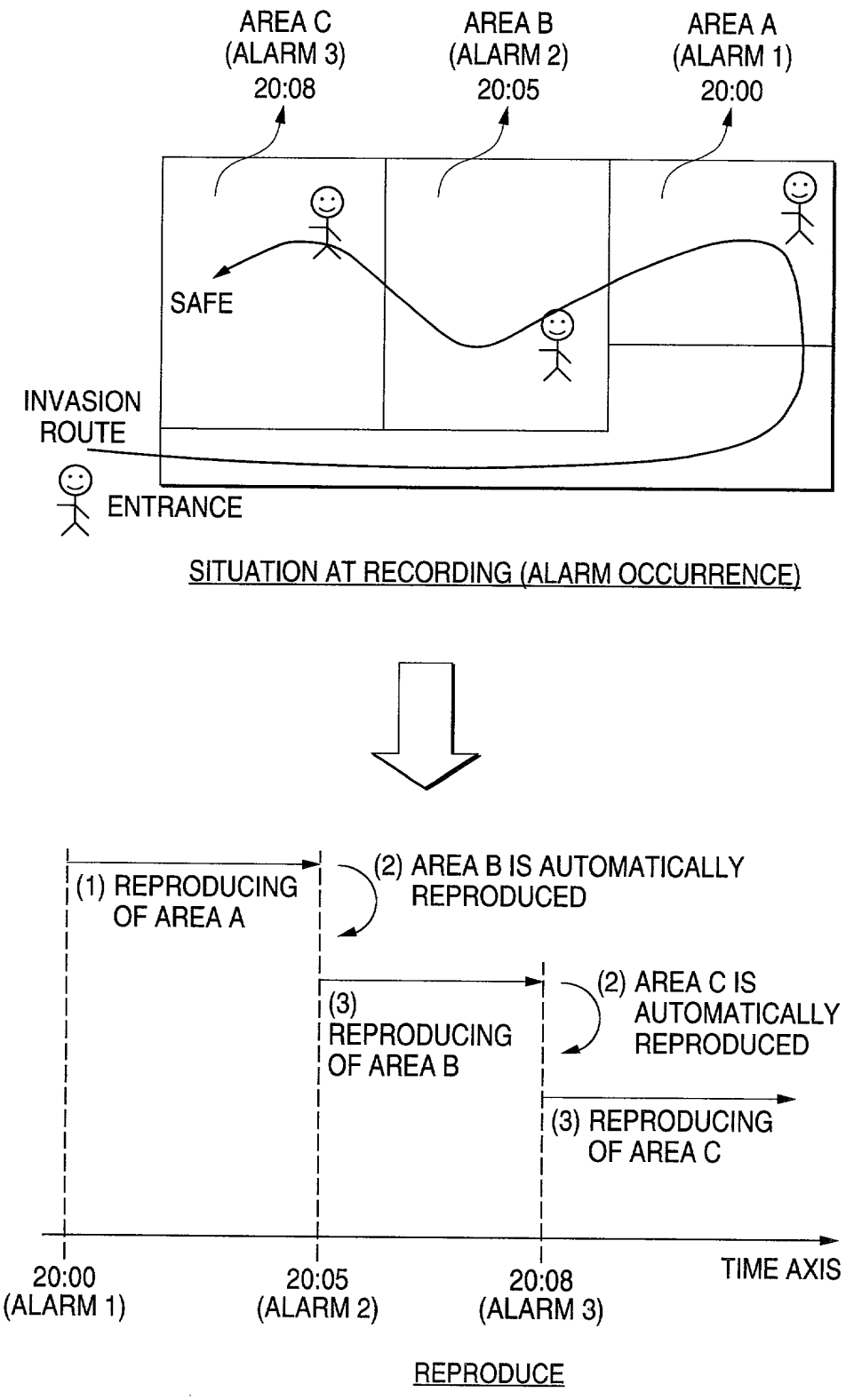

AREA A (MONITORING)
AREA B (MONITORING)
1
3
ALARM
10
8
AREA C (MONITORING)
AREA D (MONITORING)

FIG. 17


AREA C
(ALARM 3)
20:08
AREA B
(ALARM 2)
20:05
AREA A
(ALARM 1)
20:00
SAFE
INVASION
ROUTE
ENTRANCE
SITUATION AT RECORDING (ALARM OCCURRENCE)
(1) REPRODUCING
OF AREA A
(2) AREA B IS AUTOMATICALLY
REPRODUCED
(3)
REPRODUCING
OF AREA B
(2) AREA C IS
AUTOMATICALLY
REPRODUCED
(3) REPRODUCING
OF AREA C
20:00
(ALARM 1)
20:05
(ALARM 2)
20:08
(ALARM 3)
TIME AXIS
REPRODUCE

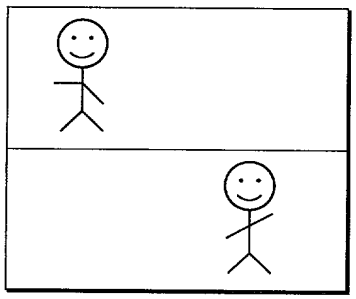



FIG. 18